

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2008; month=8; day=19; hr=11; min=59; sec=28; ms=26;]

=====

Application No: 10726692 Version No: 4.0

Input Set:

Output Set:

Started: 2008-08-15 14:31:42.782
Finished: 2008-08-15 14:31:44.679
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 897 ms
Total Warnings: 0
Total Errors: 0
No. of SeqIDs Defined: 57
Actual SeqID Count: 57

SEQUENCE LISTING

<110> KIRCHHOFF, LOUIS V.
OTSU, KEIKO

<120> RECOMBINANT POLYPEPTIDES FOR DIAGNOSING INFECTION
WITH TRYPANOSOMA CRUZI

<130> 8372.003.US0000

<140> 10726692

<141> 2003-12-04

<150> 60/460,654

<151> 2002-12-04

<160> 57

<170> PatentIn Ver. 3.3

<210> 1

<211> 1521

<212> DNA

<213> Trypanosoma cruzi

<220>

<221> CDS

<222> (1) .. (21)

<220>

<221> CDS

<222> (25) .. (162)

<220>

<221> CDS

<222> (166) .. (273)

<220>

<221> CDS

<222> (277) .. (330)

<220>

<221> CDS

<222> (334) .. (429)

<220>

<221> CDS

<222> (433) .. (573)

<220>

<221> CDS

<222> (628) .. (678)

<220>

<221> CDS

<222> (691) .. (759)

<220>
<221> CDS
<222> (763) .. (834)

<220>
<221> CDS
<222> (838) .. (861)

<220>
<221> CDS
<222> (865) .. (876)

<220>
<221> CDS
<222> (880) .. (897)

<220>
<221> CDS
<222> (901) .. (918)

<220>
<221> CDS
<222> (922) .. (933)

<220>
<221> CDS
<222> (937) .. (948)

<220>
<221> CDS
<222> (952) .. (975)

<220>
<221> CDS
<222> (979) .. (1017)

<220>
<221> CDS
<222> (1021) .. (1059)

<220>
<221> CDS
<222> (1063) .. (1101)

<220>
<221> CDS
<222> (1105) .. (1143)

<220>
<221> CDS
<222> (1147) .. (1185)

<220>
<221> CDS
<222> (1189) .. (1227)

<220>
<221> CDS
<222> (1231)..(1269)

<220>
<221> CDS
<222> (1273)..(1311)

<220>
<221> CDS
<222> (1315)..(1353)

<220>
<221> CDS
<222> (1357)..(1395)

<220>
<221> CDS
<222> (1399)..(1437)

<220>
<221> CDS
<222> (1441)..(1479)

<220>
<221> CDS
<222> (1483)..(1521)

<220>
<221> CDS
<222> (577)..(624)

<220>
<221> CDS
<222> (682)..(687)

<400> 1
tat ggc ccg agc tgt ggt gct tga gga tgg agc gct tta cgt ggc gga 48
Tyr Gly Pro Ser Cys Gly Ala Gly Trp Ser Ala Leu Arg Gly Gly
1 5 10 15

caa tgc caa caa cct cgt tcg aga aat ctc caa tgg cgt tgt cac ttc 96
Gln Cys Gln Gln Pro Arg Ser Arg Asn Leu Gln Trp Arg Cys His Phe
20 25 30

gtt tat tac gga agg act gct ggg ccc atc gta cat caa acc gta cag 144
Val Tyr Tyr Gly Arg Thr Ala Gly Pro Ile Val His Gln Thr Val Gln
35 40 45

ccg tac aaa tgg cgc tca tga ctt gtt tgt gtc gga cac ggg caa atc 192
Pro Tyr Lys Trp Arg Ser Leu Val Cys Val Gly His Gly Gln Ile
50 55 60

acg cat cat ttt tgc ccc acc tca gaa aaa aac gtt cat cac agt gtt 240
Thr His His Phe Cys Pro Thr Ser Glu Lys Asn Val His His Ser Val
65 70 75

tat aac agg att cca gcc gga tgt tct tca aat tag cga gaa gag tcg	288
Tyr Asn Arg Ile Pro Ala Gly Cys Ser Ser Asn Arg Glu Glu Ser	
80 85 90	
ttt gat gtt tgc cat ctg caa ttc cac gaa aat tct tgc gat taa tat	336
Phe Asp Val Cys His Leu Gln Phe His Glu Asn Ser Cys Asp Tyr	
95 100 105	
gca ggg agc cac aac ccc gaa gga gta ctg gca agt tgg aaa tgc gga	384
Ala Gly Ser His Asn Pro Glu Gly Val Leu Ala Ser Trp Lys Cys Gly	
110 115 120	
ctg cat ggg cta tca gag ttc cct cat gct cac gac cga gga gga taa	432
Leu His Gly Leu Ser Glu Phe Pro His Ala His Asp Arg Gly Gly	
125 130 135	
act cct cta cta cgg cat att aaa tgg aac ccc atc cat cat gtc ttt	480
Thr Pro Leu Leu Arg His Ile Lys Trp Asn Pro Ile His His Val Phe	
140 145 150 155	
acc cgc cac caa aac gaa gac gga agc acc cag aat ttg ccc gga tgt	528
Thr Arg His Gln Asn Glu Asp Gly Ser Thr Gln Asn Leu Pro Gly Cys	
160 165 170	
gtt gtt gca gtg gcc aca tgg gcc cat tgt ttc gct tgt gaa tat taa	576
Val Val Ala Val Ala Thr Trp Ala His Cys Phe Ala Cys Glu Tyr	
175 180 185	
caa aca tgc att tta cgt tgt tac cgc ctc caa tgt ata cat tgt aca	624
Gln Thr Cys Ile Leu Arg Cys Tyr Arg Leu Gln Cys Ile His Cys Thr	
190 195 200	
tga tgg ctc gta tca tcc gac tgg atc cat ggc cca gct cca aca ggc	672
Trp Leu Val Ser Ser Asp Trp Ile His Gly Pro Ala Pro Thr Gly	
205 210 215	
aga aaa taa tat cac taa ttc caa aaa aga aat gac aaa gct acg aga	720
Arg Lys Tyr His Phe Gln Lys Arg Asn Asp Lys Ala Thr Arg	
220 225 230	
aaa agt gaa aaa ggc cga gaa aga aaa att gga cgc cat taa ccg ggc	768
Lys Ser Glu Lys Gly Arg Glu Arg Lys Ile Gly Arg His Pro Gly	
235 240 245	
aac caa gct gga aga gga acg aaa cca agc gta caa agc agc aca caa	816
Asn Gln Ala Gly Arg Gly Thr Lys Pro Ser Val Gln Ser Ser Thr Gln	
250 255 260	
ggc aga gga gga aaa ggc taa aac att tca acg cct tat aac att tga	864
Gly Arg Gly Gly Lys Gly Asn Ile Ser Thr Pro Tyr Asn Ile	
265 270 275	
gtc gga aaa tat taa ctt aaa gaa aag gcc aaa tga cgc agt ttc aaa	912
Val Gly Lys Tyr Leu Lys Glu Lys Ala Lys Arg Ser Phe Lys	
280 285 290	
tcg gga taa gaa aaa aaa ttc tga aac cgc aaa aac tga cga agt aga	960

Ser Gly	Glu Lys Lys Phe	Asn Arg Lys Asn	Arg Ser Arg	
	295	300		
gaa aca gag ggc ggc tga ggc tgc caa ggc cgt gga gac gga gaa gca	1008			
Glu Thr Glu Gly Gly	Gly Cys Gln Gly Arg Gly Asp Gly Glu Ala			
305	310	315		
gag ggc agc tga ggc cac gaa ggt tgc cga agc gga gaa gcg gaa ggc	1056			
Glu Gly Ser	Gly His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly			
320	325	330		
agc tga ggc cgc caa ggc cgt gga gac gga gaa gca gag ggc agc tga	1104			
Ser	Gly Arg Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser			
335	340	345		
agc cac gaa ggt tgc cga agc gga gaa gca gaa ggc agc tga ggc cgc	1152			
Ser His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly Ser	Gly Arg			
350	355	360		
caa ggc cgt gga gac gga gaa gca gag ggc agc tga agc cac gaa ggt	1200			
Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser	Ser His Glu Gly			
365	370	375		
tgc cga agc gga gaa gca gag ggc agc tga agc cat gaa ggt tgc cga	1248			
Cys Arg Ser Gly Glu Ala Glu Gly Ser	Ser His Glu Gly Cys Arg			
380	385	390		
agc gga gaa gca gaa ggc agc tga ggc cgc caa ggc cgt gga gac gga	1296			
Ser Gly Glu Ala Glu Gly Ser	Gly Arg Gln Gly Arg Gly Asp Gly			
395	400	405		
gaa gca gag ggc agc tga agc cac gaa ggt tgc cga agc gga gaa gca	1344			
Glu Ala Glu Gly Ser	Ser His Glu Gly Cys Arg Ser Gly Glu Ala			
410	415	420		
gaa ggc agc tga ggc cgc caa ggc cgt gga gac gga gaa gca gag ggc	1392			
Glu Gly Ser	Gly Arg Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly			
425	430	435		
agc tga agc cac gaa ggt tgc cga agc gga gaa gca gaa ggc agc tga	1440			
Ser	Ser His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly Ser			
440	445	450		
ggc cgc caa ggc cgt gga gac gga gaa gca gag ggc agc tga agc cac	1488			
Gly Arg Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser	Ser His			
455	460	465		
gaa ggt tgc cga agc gga gaa gga tat cga tcc	1521			
Glu Gly Cys Arg Ser Gly Glu Gly Tyr Arg Ser				
470	475			

<210> 2

<211> 7

<212> PRT

<213> Trypanosoma cruzi

<400> 2

Tyr Gly Pro Ser Cys Gly Ala

1 5

<210> 3

<211> 46

<212> PRT

<213> Trypanosoma cruzi

<400> 3

Gly Trp Ser Ala Leu Arg Gly Gly Gln Cys Gln Gln Pro Arg Ser Arg

1 5 10 15

Asn Leu Gln Trp Arg Cys His Phe Val Tyr Tyr Gly Arg Thr Ala Gly

20 25 30

Pro Ile Val His Gln Thr Val Gln Pro Tyr Lys Trp Arg Ser

35 40 45

<210> 4

<211> 36

<212> PRT

<213> Trypanosoma cruzi

<400> 4

Leu Val Cys Val Gly His Gly Gln Ile Thr His His Phe Cys Pro Thr

1 5 10 15

Ser Glu Lys Asn Val His His Ser Val Tyr Asn Arg Ile Pro Ala Gly

20 25 30

Cys Ser Ser Asn

35

<210> 5

<211> 18

<212> PRT

<213> Trypanosoma cruzi

<400> 5

Arg Glu Glu Ser Phe Asp Val Cys His Leu Gln Phe His Glu Asn Ser

1 5 10 15

Cys Asp

<210> 6

<211> 32

<212> PRT

<213> Trypanosoma cruzi

<400> 6

Tyr Ala Gly Ser His Asn Pro Glu Gly Val Leu Ala Ser Trp Lys Cys

1 5 10 15

Gly Leu His Gly Leu Ser Glu Phe Pro His Ala His Asp Arg Gly Gly
20 25 30

<210> 7

<211> 47

<212> PRT

<213> Trypanosoma cruzi

<400> 7

Thr Pro Leu Leu Arg His Ile Lys Trp Asn Pro Ile His His Val Phe
1 5 10 15

Thr Arg His Gln Asn Glu Asp Gly Ser Thr Gln Asn Leu Pro Gly Cys
20 25 30

Val Val Ala Val Ala Thr Trp Ala His Cys Phe Ala Cys Glu Tyr
35 40 45

<210> 8

<211> 16

<212> PRT

<213> Trypanosoma cruzi

<400> 8

Gln Thr Cys Ile Leu Arg Cys Tyr Arg Leu Gln Cys Ile His Cys Thr
1 5 10 15

<210> 9

<211> 17

<212> PRT

<213> Trypanosoma cruzi

<400> 9

Trp Leu Val Ser Ser Asp Trp Ile His Gly Pro Ala Pro Thr Gly Arg
1 5 10 15
Lys

<210> 10

<211> 23

<212> PRT

<213> Trypanosoma cruzi

<400> 10

Phe Gln Lys Arg Asn Asp Lys Ala Thr Arg Lys Ser Glu Lys Gly Arg
1 5 10 15

Glu Arg Lys Ile Gly Arg His
20

<210> 11

<211> 24

<212> PRT

<213> Trypanosoma cruzi

<400> 11

Pro Gly Asn Gln Ala Gly Arg Gly Thr Lys Pro Ser Val Gln Ser Ser
1 5 10 15

Thr Gln Gly Arg Gly Gly Lys Gly
20

<210> 12

<211> 8

<212> PRT

<213> Trypanosoma cruzi

<400> 12

Asn Ile Ser Thr Pro Tyr Asn Ile
1 5

<210> 13

<211> 4

<212> PRT

<213> Trypanosoma cruzi

<400> 13

Val Gly Lys Tyr
1

<210> 14

<211> 6

<212> PRT

<213> Trypanosoma cruzi

<400> 14

Leu Lys Glu Lys Ala Lys
1 5

<210> 15

<211> 6

<212> PRT

<213> Trypanosoma cruzi

<400> 15

Arg Ser Phe Lys Ser Gly
1 5

<210> 16

<211> 4

<212> PRT

<213> Trypanosoma cruzi

<400> 16

Glu Lys Lys Phe

1

<210> 17

<211> 4

<212> PRT

<213> Trypanosoma cruzi

<400> 17

Asn Arg Lys Asn

1

<210> 18

<211> 8

<212> PRT

<213> Trypanosoma cruzi

<400> 18

Arg Ser Arg Glu Thr Glu Gly Gly

1

5

<210> 19

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 19

Gly Cys Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser

1

5

10

<210> 20

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 20

Gly His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly Ser

1

5

10

<210> 21

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 21

Gly Arg Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser

1

5

10

<210> 22

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 22

Ser His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly Ser
1 5 10

<210> 23

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 23

Gly Arg Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser
1 5 10

<210> 24

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 24

Ser His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly Ser
1 5 10

<210> 25

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 25

Ser His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly Ser
1 5 10

<210> 26

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 26

Gly Arg Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser
1 5 10

<210> 27

<211> 13

<212> PRT

<213> Trypanosoma cruzi

<400> 27

Ser His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly Ser
1 5 10

<210> 28
<211> 13
<212> PRT
<213> Trypanosoma cruzi

<400> 28
Gly Arg Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser
1 5 10

<210> 29
<211> 13
<212> PRT
<213> Trypanosoma cruzi

<400> 29
Ser His Glu Gly Cys Arg Ser Gly Glu Ala Glu Gly Ser
1 5 10

<210> 30
<211> 13
<212> PRT
<213> Trypanosoma cruzi

<400> 30
Gly Arg Gln Gly Arg Gly Asp Gly Glu Ala Glu Gly Ser
1 5 10

<210> 31
<211> 13
<212> PRT
<213> Trypanosoma cruzi

<400> 31
Ser His Glu Gly Cys Arg Ser Gly Glu Gly Tyr Arg Ser
1 5 10

<210> 32
<211> 42
<212> DNA
<213> Trypanosoma cruzi

<220>
<221> modified_base
<222> (1)..(4)
<223> a, t, c, g

<400> 32
nnnctatta ttgatacagt ttctgtacta tattggttgt gc

<210> 33
<211> 3749

<212> DNA
<213> Trypanosoma cruzi

<220>
<221> CDS
<222> (833)..(2575)

<220>
<221> sig_peptide
<222> (822)..(937)

<220>
<221> mat_peptide
<222> (938)..(2575)

<400> 33
ccccctcgag gtcgacctgc aggtcaacgg atcttacctg agtacaaaag gtcaagtgag 60

cgggtcaaaaag gatgtatata tacatatata accataaggg aaacatttgg gcatttaact 120

gcctttacat ttcccttttc cttcaatatc ttgtttgttt gtttttggtt tctataggaa 180

attttaggat cgggccagcg gcataggaga ttattctctt ttttattaat tgcttaatgc 240

gttgggtctgt gtgtgtgttg gttcccttgt gcgagctcac ggggcctaat tatgattgtt 300

gcgcatatgc atatatatat atatatatat acatgtgtgt gtgtgtgtat atgtacgttt 360

gttggtttgc cgctgtactc ccgctgcgt gtgtctgtct ctctctctgt gtgtgtgatg 420

ggctgcttct ctttcttttg ttgcgtccct ttattattat ttttttttt tcttctctcc 480

cacttctctc ccggtgtggt gcacgcacag taaagataga gggagaaaata gagcgagtgt 540

ttgtatcagt gtctccgttg cggtcggtag tggtagaagg agaagaatag aagaaggaga 600

aaaaaaaaaa aaaaaaaaaa aaaagagaga gagagagaga agggcgaacg agaaaaaaga 660

agaagaaaca tttgagaagg aattggaacg aaaattgtaa gaggaagcaa aaaaaaaaaa 720

aaaaagtgtg tgtgtgtgag agagagagag agaggaagcc aataataata aaaagcaaac 780

aaaaaagcaa aaacaaaaat atttgtagac cggacgtccc gtcttggaacg tg atg ttt 838
Met Phe
-35

tca aaa agg acg tcg cca gca ccc ttc cgt gcg ctc ctg ctg ccg gtc 886
Ser